

**REMARKS**

Claims 1, 3-6 and 8-23 have been examined. Claims 1, 3, 5, 6, 11, 14, 17, 18, 20 and 23 have been rejected under 35 U.S.C. § 102(b), and claims 4, 8, 9, 10, 15, 16, 21 and 22 have been rejected under 35 U.S.C. § 103(a). Also, the Examiner has indicated that claims 12 and 13 contain allowable subject matter.

**I. Preliminary Matters**

The Examiner has objected to claims 1 and 17 due to minor informalities. Accordingly, Applicant has amended claims 1 and 17 in a manner believed to overcome the objection. Such amendments are not made in view of the prior art.

**II. Rejections under 35 U.S.C. § 102(b) in view of U.S. 5,978,061 to Miyazaki et al.  
("Miyazaki")**

The Examiner has rejected claims 1, 3, 5, 6, 11, 14, 17, 18, 20 and 23 under 35 U.S.C. § 102(b) as allegedly being anticipated by Miyazaki (Figure 9).

**A. Claim 1**

Claim 1 recites a seal which bonds said first substrate and said second substrate by contacting at least one part of said first conductive column except at a part of said first conductive column which connects said conductive column contact portion.

Applicant submits that since the seal contacts with at least one part of said first conductive column, it is possible to perform stable connection between the first conductive column and the conductive column contact portion. In Miyazaki, a pillar-shaped spacer 38 (alleged ground column) and a leading electrode 23 of the active matrix substrate 10 are electrically connected only by the pressure applied by a sealing material 37 (alleged seal) formed outside the pillar-shaped spacer 38. The sealing material 37 is used to constantly maintain the spacing between the active matrix substrate 10 and the opposite substrate 30. Therefore, there is a problem that adhesion between the pillar-shaped spacer 38 and the leading electrode 23 of the active matrix substrate 10 is so low that the electrical connection is not stable.

On the contrary, in the present invention, the seal contacts with the first conductive column. Therefore, it is possible to perform stable connection between the first conductive column and the conductive column contact portion. Also, even if a foreign material or the like attached to a rubbing cloth is attached as a contaminant to the conductive column at the time of rubbing, the foreign material flowing into the liquid crystal layer to contaminate the liquid crystal material can be avoid since the conductive columns are covered with the seal (see, non-limiting embodiments on pg. 13-14 of the present Application).

Applicant submits that Miyazaki fails to teach or suggest the claimed seal.

For the foregoing reasons, Applicant submits that independent claim 1 is not anticipated by Miyazaki, and is therefore patentable. Applicant respectfully requests the Examiner to reconsider and withdraw the rejection.

**B. Claims 3, 5, 6, 11 and 14**

Since claims 3, 5, 6, 11 and 14 are dependent upon claim 1, Applicant submits that such claims are patentable at least by virtue of their dependency.

**C. Claim 17**

The Examiner has rejected claim 17 under 35 U.S.C. §102(b) as allegedly being anticipated by Miyazaki (Figure 9). However, since claim 17 contains features that are analogous to the features recited in claim 1, Applicant submits that claim 17 is patentable for at least analogous reasons as set forth above.

**D. Claim 18**

The Examiner has rejected claim 18 under 35 U.S.C. §102(b) as allegedly being anticipated by Miyazaki (Figure 9). Claim 18 recites that the seal is cured while adhering to a part of the first conductive column other than a part which contacts the conductive column contact portion. Since the seal is cured while adhering to a part of the first conductive column, it makes possible to perform stable connection between the first conductive column and the conductive column contact portion. Applicant submits that Miyazaki fails to teach or suggest the claimed seal which adheres to a part of a first conductive column.

Applicant submits that claim 18 is patentable for at least analogous reasons as set forth above.

**E. Claims 20 and 23**

Since claims 20 and 23 are dependent upon claim 18, Applicant submits that such claims are patentable at least by virtue of their dependency.

**III. Rejections under 35 U.S.C. § 103(a) in view of Miyazaki and U.S. 2002/0024621 to Hirakata et al. (“Hirakata”).**

The Examiner has rejected claims 4, 8, 15, 16, 21 and 22 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Miyazaki in view of Hirakata. However, claims 4, 8, 15 and 16 are dependent upon claim 1, and claims 21 and 22 are dependent upon claim 18. Since Hirakata fails to cure the deficient teachings of Miyazaki, in regard to claims 1 and 18, Applicant submits that claims 4, 8, 15, 16, 21 and 22 are patentable at least by virtue of their dependency.

Further, the Examiner alleges that “lengthwise direction of the second conductive column (left of 32G) of the second substrate (11) coincides with a direction of rubbing of an alignment film” (page 7 of Office Action). Applicant submits that Miyazaki’s pillar-shaped spacer 38 is on the opposite substrate 30, not on the active matrix substrate 10 or on a glass substrate (alleged the

second substrate). Applicant submits that Miyazaki and Hirakata fail to teach or suggest the direction of rubbing of an alignment film.

For the additional reasons set forth above, Applicant submits that dependent claims 16 and 22 are patentable over Miyazaki in view of Hirakata. Applicant respectfully requests the Examiner to reconsider and withdraw the rejection.

**IV. Rejections under 35 U.S.C. § 103(a) in view of Miyazaki and U.S. 6,392,735 to Tani (“Tani”)**

The Examiner has rejected claims 9 and 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Miyazaki in view of Tani. However, since claims 9 and 10 are dependent upon claim 1, and Tani fails to cure the deficient teachings of Miyazaki, in regard to claim 1, Applicant submits that claims 9 and 10 are patentable at least by virtue of its dependency.

**V. Allowable Subject Matter**

As set forth above, the Examiner has indicated that claims 12 and 13 contain allowable subject matter.

## **VI. Newly Added Claims**

Applicant has added claims 24 and 25 to provide more varied protection of the present invention. Applicant submits that claims 24 and 25 are fully supported by claim 1, in addition to the non-limiting embodiments on pg. 12, line 3 to line 4, pg. 14, line 1 to line 4 and Figs. 6(a) and 6(b). Applicant submits that claim 24 is patentable for at least analogous reasons as claim 1. In regard to claim 25, Applicant submits that shrinkage of the sealing material and a ground column made of an elastic resin material make it possible to perform stable connection between the first conductive column and the conductive column contact portion. Miyazaki fails to teach or suggest the shrinkage of the sealing material. Therefore, Applicant submits that claim 25 is patentable.

Also, Applicant has added new claims 26 and 27, and submits that such claims are patentable for at least analogous reasons as claim 12.

## **VII. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

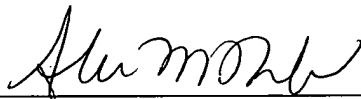
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Respectfully submitted,



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